

IN THE CLAIMS:

1. (twice amended) A method of providing a graphic display of an electrical distribution network to provide network personnel insight into network operations comprising:

monitoring a section of the distribution network including a plurality of interconnected line segments of the network within the section so to obtain information about a predetermined performance characteristic within of the segment section over the line segments;

processing the information to ascertain relative performance characteristic values within for the different portions of the line segments of the section ; and,

displaying the results of the processing in a graphic format which allows an observer to readily ascertain what is occurring at the respective portions within the line segments and determine whether operations within the network segment section are acceptable, and if not, where within the section a problem is occurring, and the magnitude of the problem, displaying the information including a three-dimensional display in which one axis represents locations the line segments within the network segment section, a second axis a representative value of the monitored performance characteristic, and the third axis periods of time, the display providing a quality of service map for the network section.

2. (previously canceled)

3. (previously amended) The method of claim 1 in which the third axis of the display represents service paths within the network segment.

4. (previously amended) The method of claim 1 in which the display comprises a terrain map including both current and historical information about the network, the terrain map being used to monitor and improve the quality of service within the network.

5. (original) The method of claim 3 further including a plurality of displays each of which comprises a terrain map including information about the network at

a given point in time, the terrain maps being used to monitor and improve the quality of service within the network.

6. (original) The method of claim 5 in which the terrain maps are arranged in a loop of maps and the method further includes a user traversing through the loop to obtain information about the quality of network performance over time.

7. (original) The method of claim 1 in which monitoring a segment of the network includes counting customer complaints regarding problems within areas of the network segment.

8. (original) The method of claim 1 in which the monitoring further includes counting the occurrences of power outages within the network segment.

9. (original) The method of claim 8 in which the monitoring further includes measuring line voltages at the respective locations within the network.

10. (original) The method of 9 including using a two-way network communications system to obtain the information about the network segment.

11. (original) The method of claim 1 further including providing a separate graphic display of multiple segments of the electrical distribution network.

12. (previously amended) The method of claim 11 further including combining the information used to produce the separate graphic displays to produce a graphic display for the entire network.

13. (original) The method of claim 1 in which the information comprises a color coded, three dimensional display to facilitate understanding the information presented.

14. (original) The method of claim 13 further including providing symbols to identify particular types of incidents which occurred at particular locations and/or particular times to facilitate interpreting the display.

15. (original) The method of claim 13 further including rotating the display about any axis of the display to allow a viewer to readily view particular features on the terrain map.

16. (original) The method of claim 13 in which the display is transmissible from one location to another by an electronic medium so the information can be displayed at more than one viewing location.

17. (original) The method of claim 13 further including electronically storing the information used to produce the display.

18. (original) The method of claim 13 further including periodically updating the display to include information for another predetermined period of time.

19. (twice amended) A method of providing a graphic display of an electrical distribution network to provide network personnel insight as to network operation comprising:

monitoring a section plurality of a power distribution network including a plurality of interconnected line segments within the section to obtain information about predetermined types of incidents occurring within the section over each respective line segment;

processing the information to ascertain ~~where within each segment incidents occurred~~ and the number of incidents which occur over each respective line segment for a predetermined period of time; and,

displaying the combined results in a graphic format which includes the number of incidents occurring within each the network segment section, each ~~location~~ line segment within the ~~segment~~ section where they occurred, and the number of incidents which occurred at for that location line segment during previous periods of time, and including a three-dimensional display in which one axis represents ~~locations~~ the interconnected line segments within the network ~~segment~~ section, a second axis the number of incidents which occurred, and the third axis periods of time.

20. (previously canceled)

21. (previously amended) The method of claim 19 in which the third axis of the display represents service paths within the network segment.

22. (previously amended) The method of claim 19 in which the display comprises a terrain map including both current and historical information about the network, the terrain map being used to monitor and improve the quality of service within the network.

23. (original) The method of claim 21 further including a plurality of displays each of which comprises a terrain map including information about the network at a given point in time, the terrain maps being used to monitor and improve the quality of service within the network.

24. (original) The method of claim 23 in which the terrain maps are arranged in a loop of maps and the method further includes a user traversing through the loop to obtain information about the quality of network performance.

25. (original) The method of claim 19 further including color coding the display to make it easier to understand the information presented.

26. (original) The method of claim 25 further including providing symbols to identify particular types of incidents which occurred at particular locations and/or particular times to make it easier to interpret the display.

27. (original) The method of claim 25 further including rotating the display about any axis so a user can more readily view particular features on the terrain map.

28. (amended) A method of providing a graphic display of an electrical distribution network to provide insight into network operations comprising:

monitoring interconnected line segments of a section of the network to obtain current information about a predetermined performance characteristic within a the line segments ;

processing the information to ascertain relative performance characteristic values within over different portions of the line-segments network section; and,

displaying the results of processing of the information in a graphic format together with historical information about the respective interconnected line

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segments, for an observer to readily ascertain what is occurring at a respective ~~portions within a~~ line segment and determine whether operations within the segment network section are acceptable, and if not, where a problem is occurring, and the magnitude of the problem.